is not one of my best virtues, if I have any virtues at all. But the thing we need to remember is that this is a fluid standard. Project 25 is a fluid standard. And as I think I commended in an earlier meeting, even the Commission's actions have proven over the years to be fluid that things can be changed.

I think the real question here is not to adopt a Project 25 standard and then add to it or change it in a way that would make it violate the Commission's stated intent to adopt an ANSI standard. And so as we move forward, let's keep that in mind.

If we can adopt, as I believe was stated here by Ms. Wallman, a framework under which we could work, we could have some latitude as move forward to insert the necessary changes without necessarily modifying the Project 25 standards or perhaps adding to them because they, too, are very, very fluid.

So let's move forward as rapidly as we can to satisfy the Commission's need and as slowly as we can to make sure that we get things done right. And I will leave that up to somebody else's better judgement, whether it is time to do something here now or to wait a while.

MR. WELLS: Carlton Wells, State of Florida. Okay, Glen, I'm ready. On the fourth standard, I would like to go ahead and include that in my recommendation. So that

ATTACHMENT 4

Minority Report on Interoperable Data
Submitted by Dataradio Corporation
In Response to the NCC February 25, 2000
Recommendations to the FCC
(March 13, 2000)

Dataradio Corporation (Dataradio) submits this Minority Report in response to the NCC's February 25, 2000 recommendations to the FCC.[1] Dataradio has participated in the last four NCC meetings with the view to assisting the NCC's efforts towards development of standards for data interoperability. As a leading manufacturer of radios dedicated exclusively to data communications, and as a major provider of data-only equipment to the public safety sector, Dataradio is well aware of the many and complex issues involved in achieving data interoperability. During the recent NCC meetings in New York City and in Washington, D.C., Dataradio sought to focus the efforts of the NCC by presenting details of some of the issues that will need to be addressed in developing data interoperability standards, and by suggesting approaches to resolving these issues.

Dataradio applauds the work of the NCC in striving to meet the FCC's mandate of developing in a short timeframe recommendations for interoperability standards. Dataradio is concerned that with regard to the recommended data standards the NCC has moved too fast and is recommending a standard that: (1) does not address the many issues involved in achieving data interoperability; (2) has not been thoroughly discussed and considered by NCC participants; (3) does not meet the forward-looking needs of data users; and (4) does not meet the FCC's mandate of developing data standards that will facilitate spectrum efficient technological advancement and promote competition among manufacturers.

An Interoperable Data Standard Has Not Been Defined

The NCC Recommendations advise the FCC to adopt the Project 25 standard for data interoperability in the narrowband channels, along with the four recently balloted TIA data standards designed to accompany the Project 25 standard.[2] These standards address only the air interface aspects of interoperability, and do not even begin to resolve the many other complex issues involved with data interoperability. True interoperability with data is much more a function of the information to be shared than of the air interface. Thus, it requires applications and pathways to share information in a common data base; likewise, messaging and other data type functions need to be commonly formatted and standardized to effect interchange. Beyond this, there needs to be a

[1] Public Safety National Coordination Committee, "Recommendations to the Federal Communicaitons Commission for Technical and Operational Standards for use of the 764-776 MHz and 794-806 MHz Public Safety Band Pending Development of Final Rules" (February 25, 2000).

[2] These are: ANSI/TIA/EIA 102.BAAA; TIA/EIA/IS 102.BAEA; TIA/EIA/IS 102.BAEB; TIA/EIA/IS 102.BAEC; and TIA/EIA/IS 102.BAEE.

command and control protocol to determine aspects such as access validation, identity verification and other operational components of the process.

Analogizing this to the world of voice communications, consider what would happen if voice users did not all speak the same language, e.g., English, but in fact spoke many different languages. With a common air interface or R/F protocol different users could speak to each other, but there would be no interoperability with one user speaking English while another speaks Spanish. While this analogy simplifies the problem that data interoperability presents, it is useful in showing where standards work is needed. The issues are application driven, and these are not addressed by the air interface. As stated by Robert Schlieman, who presented these standards during the January 27th meeting of the Subcommittee on Technology,

> Clearly, there is more required than just these four standards. There is a need to standardize an application layer to properly communicate with data. Obviously, you could send bit stream text and receive that. However, in the discussions that we had this morning, it was clear that there was a need for high accuracy.
>
> And while the transmission of messages will require a high level of accuracy, more so than speech requires and also the formatting of transmissions so that the information that is communicated is useable at the opposite end, that needs some further work done on it.[3]

At most, the Project 25 standards limit the boundaries within which the future work will be able to be conducted. But the FCC should not be misled by the NCC's Project 25 recommendation – it is only a quick and easy way of beginning the process, and a great deal of work remains to be done.

It should be noted that the same principle applies to wide band data. Although the recommendation has been made to obtain the aid of the TIA in developing a wide band data standard, the same problem will persist, and that effort has not yet begun. As pointed out by the Motorola wide band data presentation during the NCC's January meeting in Washington, DC, data intercommunication is application driven and therefore the wide band interoperable standard selected must be developed in concert with recognition of that reality.[4]

Most importantly, to date there has been very little work done to identify the specific needs of data interoperability. The needs and uses for voice interoperability are obvious, i.e., to allow officers and officials from multiple agencies and different jurisdictions to have verbal communication with each other over an easily-accessible common interface. But data interoperability is more complex; and it is very much a

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[3] Remarks of Robert Schlieman, meeting of NCC Subcommittee on Technology, San Francisco, California, January 27, 2000, Minutes, pg. 5.

[4] Remarks of Tim Goodall, Motorola, Meeting of NCC Subcommittee on Technology, January 13, 2000, Washington, DC, minutes pgs. 3-36.

function of the information being shared. It is not possible to define an appropriate interoperability regime without first determining the what, why and how of data sharing, i.e., what types of data will be shared, why is there a need to share such data, and how will the shared data be put to use. Once these issues have been addressed, appropriate pathways for sharing the data will become more easily determined. To date, however, almost no work has been done to identify the uses and needs of data interoperability. The PSWAC Report touched upon the issue in only the most general way.[5] The NCC itself has not yet identified these needs and uses. Certainly, the NCC has identified the need to be able to share data, for example, directly between officers, but this does not resolve the critical what, why and how issues. Dataradio respectfully suggests that before choosing a standard that limits available options for data interoperability, the NCC should work to define specifically the uses and needs of data sharing, and then work to adopt a standard that will facilitate such operations.

The Project 25 Recommendation Has Not Been Thoroughly Considered by the NCC

The NCC began addressing the issue of data interoperability only last November at the meeting in New York City. By the time of the January 2000 meeting in Washington, DC, the NCC had still made very little progress in addressing the data interoperability standard. This was recognized in Mr. Sugrue's remarks to the NCC, where he stated, "So far the NCC has made considerable progress on recommendations for narrowband voice channels. But you have not yet addressed the matter of data transmission on the narrowband channels."[6]

Within two weeks of the Washington, DC meeting, the NCC moved from having hardly discussed the data interoperability issue, to adopting the Project 25 data suite standards during the San Francisco meetings, on January 27th and 28th. It appears that this was done with minimal consideration, without discussing possible alternatives, without addressing whether the NCC should ask TIA or ANSI to amend or change these standards in light of the NCC's own mandate from the FCC, and to a large extent without even allowing attendees at the NCC's January 27th and 28th meetings thoroughly to review the standards.

The use of the Project 25 standard for data interoperability was considered for the first time at the San Francisco meetings. It was put forward during those meetings as an appropriate data interoperability standard when combined with the accompanying suite of four additional standards that were balloted by TIA in October 1999 and are published as Interim Standards.[7] These standards were developed, balloted and approved without any

[5] *Final Report of the Public Safety Wireless Advisory Committee* (September 11, 1996).

[6] Remarks of Thomas Sugure, Chief, Wireless Telecommunications Bureau, as delivered to the meeting of the Public Safety National Coordination committee, January 14, 2000, Washington, DC.

[7] Remarks of Robert Schlieman, meeting of NCC Subcommittee on Technology, San Francisco, California, January 27, 2000, Minutes, pg. 3.

input from or consideration by the NCC. The NCC simply adopted them wholesale at the January 27 meeting. Because TIA has a copyright on the standards, they were not even available to many of the attendees at the NCC meetings; ten copies were distributed to governmental entities for the first time at the January 27 meeting of the Subcommittee on Technology.[8]

The ensuing discussion focused mainly on the need to propose something to the FCC by February 2000, and the fact that these were the only standards in existence. As Ms. Wallman pointed out in addressing the Subcommittee,

> We are under considerable time pressure as Chief Shegrew (sic.) of the Wireless Telecommunications Bureau indicated at our last meeting in Washington. The report is due at the end of February. The FCC does expect some advice based on what is available in the art and practice on data standards. ... I think at the moment we have to find a way to do the best we can with the available standards documents ... .[9]

Further, Mr. Schlieman commented,

> Trying to come up with recommendations for a data standard in less than two weeks is a bit of an unrealistic task. But since these standards have already been developed for use with the ANSI 102 series equipment, it seems reasonable, if not logical, that these standards should be employed for data communications.[10]

Thus, these standards, which were presented to the Subcommittee for the first time on January 27, were adopted with minimal public deliberation and without time for interested parties to review the standards. In short, they were adopted solely because the Subcommittee felt it was "under the gun" from the FCC to do *some*thing, and because these standards were the "only game in town."

As a result, any "consensus" that may have been reached during the meetings was not the result of considered deliberation. This goes against the FCC's mandate to the NCC, which calls for the NCC to take an active and deliberative role in making recommendations. As the FCC stated in the First Report and Order, WT Docket No. 96-86, "We further will require the National Coordination Committee to monitor industry standard-setting activities, including those described above [i.e., Project 25 Phase I and

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[8] Id., pg. 4.

[9] Remarks of Kathleen Wallman, Chair, NCC, meeting of NCC Subcommittee on Technology, San Francisco, California, January 27, 2000, Minutes, pg. 26.

[10] Remarks of Robert Schlieman, meeting of NCC Subcommittee on Technology, San Francisco, California, January 27, 2000, Minutes, pg. 5.

Phase II], and use the information learned to recommend a set of voluntary technical standards for digital modulation to be used on the nationwide interoperability channels."[11] While the FCC subsequently clarified that the NCC would not itself have to become ANSI-certified but could instead adopt ANSI or like standards, it did not relieve the NCC from properly performing its deliberative, active role:

> We agree that allowing the NCC to make use of the work of other ASDs would offer the benefits of increased efficiency and improved use of NCC resources. The NCC could take advantage of these options in several ways, including by *reviewing and recommending* existing American national Standards, by *working with* one or more ASDs *to advance the progress of pending documents* toward their approval as American national Standards, or by entering into an agreement with one or more ASDs to *begin the process* of developing one or more new standards. The ability to employ one or more of these approaches would potentially save time by allowing the NCC *to build on standards work already accomplished* or by allowing other technical standards development work to begin immediately, ... In addition, allowing the NCC *to work cooperatively* with existing ASDs with expertise in the area of public safety communications ....[12]

Clearly, the FCC anticipated the NCC would "work with" ASDs and would "build on" existing standards in light of the FCC's mandate. Thus the FCC anticipated that the NCC would carefully consider any recommendations it might make to the FCC, and not simply pick whatever might be available. Unfortunately, the latter is what has occurred here, primarily as a result of the time crunch that the NCC felt itself to be under. The NCC should reassess its conclusions, allowing appropriate time for deliberation and comment, and work with ASDs as appropriate to facilitate standards development that will meet the needs of data interoperability, as discussed above. As stated in the PSWAC Final Report, "These [interoperability] standards and connections should be developed by a fair and open process that encourages industry to cooperate in order to provide the tools and technology needed by the Public Safety community."[13] That has not happened here. Two weeks is not enough time to allow fair and open cooperation among the various parties with need, knowledge and know-how in this field.

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[11] *Development of Operational, Technical and Spectrum Requirements for Meeting Fedearl, State and local Public Safety Agency Communications Requirements Through the Year 2010*, First Report and Order, 14 FCC Rcd 152 (September 29, 1998), para. 113.

[12] *Development of Operational, Technical and Spectrum Requirements for Meeting Fedearl, State and local Public Safety Agency Communications Requirements Through the Year 2010*, Order on Reconsideration, 14 FCC Rcd 8059, 8065 (May 4, 1999).

[13] *Final Report of the Public Safety Wireless Advisory Committee* (PSWAC), §2.2.11.3 (September 11, 1996).

Project 25 as a Data Standard is Largely Obsolete

The Project 25 protocol as a standard for data transmission is obsolete. The underlying standard itself is at least seven years old. As a result, it does not take account of the tremendous advances in data communications that have occurred over the past seven years. In many respects, the standard is backward looking. It was designed to accommodate analog systems, and in this regard alone makes little sense for data transmissions. Moreover, it was written originally for voice transmissions, and that is probably all it is useful for today. It provides a meager 9600 bps raw bit rate in 12.5 kHz channels, which will not promote creative, efficient use of the spectrum. In spite of the recently adopted interim "data suite" of accompanying standards intended to "shoehorn" the Project 25 standard into the world of data, it is, for purposes of data transmissions, an outmoded throwback to a bygone age when data played a small role compared to what data can do today, and will do a few years hence.

In the near future, we can count on users and application software providers to find creative uses for this spectrum that will not work well with the low efficiency and bit rate contemplated by the Project 25 standard. Such new applications and networks will not react well to being throttled down to 9600 bps. It is more than likely that such data networks will simply not be accessible at the low efficiency levels of the Project 25 standard. Certainly, users are not likely to flock to such a standard, nor are software developers or systems designers likely to focus their efforts on working to meet such a low efficiency standard.

In essence, adopting the 7-year-old Project 25 standard for data interoperability is akin to establishing a computer network today based on an old "286-type" chip. The network could function, but it would be generations out of date before even becoming operational. It would not be able to run many of today's applications or to operate with emerging peripherals. It would have very low functionality. This is not the direction the NCC should be taking for data interoperability.

Unfortunately, there is not enough awareness of the NCC's work on the part of many groups of Public Safety technologists from the Information Systems and Application Software arena. Such groups could play an important and useful role in creating a relevant and sound standard for full-fledged data interoperability. Proceeding without such input, and simply adopting an obsolete standard for data on the grounds that it is the only "standard" available is a mistake. We respectfully suggest that the NCC reach out to such groups and seek their input in moving forward.

On the other hand, it simply is not necessary for the data interoperability standard to be the same as the standard adopted for voice interoperability. The two can be easily separated, with one standard being recommended for voice, and another, still to be developed, being recommended for data. Indeed, it is logical that the standards would not be the same, since the two uses, in both theory and practice, are quite different and discrete. Importantly, data uses are still developing and evolving; it would be a mistake

to hamstring their future development by imposing on them a backward looking standard such as Project 25.

Project 25 Does Not Fulfill the FCC Mandate

In its *First Report and Order*, more than 18 months ago, the Commission clearly rejected the Project 25 Phase I standards that the NCC now recommends:

> Although it is clear that digital modulation standards must be adopted for the narrowband and wideband interoperability channels, we find that it would be premature to do so at this time. In regard to the interoperability wideband (image/HSD and video) channels, industry standard setting activities such as Project 34 are presently in early stages; consequently we do not have information on the record to adopt a digital standard for these applications. *We decline to adopt the Project 25 Phase I standards for the 700 MHz band because we intend that this band ultimately be used with a spectrum efficient 6.25 kHz technology (Project 25 Phase I is a 12.5 kHz standard).* We note that the Project 25 body has begun a promising Phase II process looking toward a digital standard for 6.25 kHz channels, and it appears that this process will also consider possible alternative technologies that provide equivalent spectrum efficiency with wider emissions.[14]

The rejection of the Project 25 standard was reiterated by Mr. Sugrue in his remarks during the NCC's January meeting:

> As you know, the Commission segmented the 700 MHz narrowband spectrum into 6.25 kHz channels. We did this in the expectation that the technology necessary to accommodate one voice channel in a 6.25 kHz bandwidth will be developed and will be suitable for public safety's purposes.
>
> Now, we may not be there yet. But I think it is important to keep this goal in mind as we address these issues. Technology changes rapidly.[15]

Obviously, in recommending the Project 25 Phase I standard, the NCC is not fulfilling its clear mandate to work towards a 6.25 kHz standard.

Mr. Sugrue stated further, "What I think the Commission would find most valuable from you in February is a recommendation for standards that represent the latest

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[14] *First Report and Order*, at para. 113 (emphasis added).

[15] Remarks of Thomas Sugure, Chief, Wireless Telecommunications Bureau, as delivered to the meeting of the Public Safety National Coordination committee, January 14, 2000, Washington, DC.

in today's technology and that have a clear, timely and realistic migration path to more spectrum-efficient technology in the future."[16] As discussed above, the Project 25 recommendation for data does not reflect the "latest technology." While it may be the only "standard" that is available at this time, it is an obsolete standard for data purposes.

Moreover, the NCC has neither deliberated nor explained how data interoperability would be migrated from Project 25 to a 6.25 kHz standard at some time in the future. This leaves a serious gap in the recommendation. It can not be assumed that migration of data interoperability from an obsolete standard could be accomplished in a cost-effective manner simply because 6.25 kHz is half of 12.5 kHz. Some pathway for future migration should be discussed and determined before adopting the Project 25 standard for data.

Conclusions

Dataradio recognizes that the recommendations are not the final ones, but some plan towards finalizing the recommendations, i.e., filling out the missing pieces of the standard and facilitating a pathway for migration to a more efficient standard, needs to be determined. The NCC must develop a plan to solve this dilemma, as without it there will be no reasonable way to judge a timetable for completing the NCC's tasks.

We urge the NCC to revisit it's methodology, process and conclusions regarding interoperable data and to consider reorganizing the effort to determine best what should go into a standard and how to achieve true industry representation. Indeed, as observed by Mr. Sugrue, "the public safety community will be best served if the recommendations you adopt result in vigorous competition among manufacturers."[17] Dataradio has previously advised the NCC that Dataradio is willing and able to work with the NCC towards these goals. What is needed is specific understanding of the needs and task list for achieving those needs, and this has yet to be addressed except in the most general sense. Through such a process, the NCC can move forward to develop a true interoperable data standard (both narrow and wide bands) that will serve as a workable tool for the Public Safety community.

[16] Id.

[17] Id. One issue with the Project 25 standards is that some features may be proprietary. PSWAC ISC Final Report, Appendix C.

ATTACHMENT 2

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

FCC NATIONAL COORDINATION
INTEROPERABILITY SUBCOMMITTEE

Commission Meeting Room
FCC Building
445 12th Street, S.W.
Washington, D.C. 20554

Thursday,
April 6, 2000

The parties met, pursuant to the notice of the Commission at 8:35 a.m.

SUBCOMMITTEE MEMBERS:

JOHN POWELL
DAVE BUCHANAN
ROBERT SCHLIEMAN
DON PFOHL
RICK MURPHY
CARLTON WELLS
MICHAEL WILHELM

PARTICIPANTS:

STEVE BEEFERMAN
PAUL MAY
GLEN NASH
ERNIE HOFMEISTER
FRED GRIFFIN
RON MAYWORM
JOE BURNS
LARRY MILLER
ART MCDOLE

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

PUBLIC SAFETY NATIONAL
COORDINATION COMMITTEE

Commission Meeting Room
FCC Building
445 12th Street, S.W.
Washington, D.C. 20554

Friday,
April 7, 2000

The parties met, pursuant to the notice of the Commission, at 1:12 p.m.

APPEARANCES:

Committee Members:

KATHLEEN WALLMAN
STEVE MUELLER
STEVE PROCTOR
MARILYN WARD
ELLEN O'HARA
TIM LOWENSTEIN
HARLAN MCEWEN
ERNEST HOFMEISTER
MICHAEL WILHELM
DOUG AIKEN
RICK MURPHY
LOUISE REME

found Brian's remarks very interesting. I think he's absolutely right that these are very complex issues, both on the commercial side and the public safety side. I think, however, within the Commission I think there's a willingness to look at some of this and so stay tuned on that.

Good afternoon. I'm pleased to be here. I all want you to know that I've read the NCC report and, as have many in the Commission. I very much appreciate all the work that went into it, particularly appreciate the work of the steering committee and Kathy Wallman's leadership in producing the report.

I guess you are all probably wondering where we go from here with the report. I think the FCC staff, led by Dwana Terry, sitting over there very dutifully, is reviewing the recommendations and I think that we are going to be acting on them in the form of a formal proceeding. Given that these are recommendations that might involve indeed some rule changes, under the Administrative Procedures Act we're going to be required to seek comment on that. So, we're preparing a Notice of Proposed Rulemaking that is going to be issued very soon in conjunction with the report.

Given that we have, there's been a lot of input already into this process, I think that we're probably going to have a short time comment cycle on that but we're planning on moving forward on that very soon and so stay

tuned on that. We're going to look forward to the input that you all are going to give us, I think.

You should also know that we have a petition for recon pending on the public safety docket, which has some issues that are NCC related. We are going to be dealing with those in conjunction with this docket, this new Notice of Proposed Rulemaking as well. So I think the plan is to have sort of a consolidated action on the part of the Commission flowing from the NCC recommendations.

I think the Commission is going to weigh several important factors in its evaluation of the NCC recommendations and the petition for reconsideration matters that are pending for it. The most important of these are really speed of deployment, cost, and spectrum efficiency.

Speed of deployment is important because we realize that in some areas of the country there are no channels available for public safety use, all of the public safety bands are saturated. Just last week Joe Hanna and the folks from ABCO met with Tom Sugrue and talked about how much he would just love access to Dallas, that there is a need for spectrum in Dallas desperately. So I think we are very well aware of the anxiousness on the part of the public safety community to use these bands, particularly in certain markets where, as in Dallas, for example, there is availability, it is not encumbered by the broadcasters, as I

understand.

Affordable costs and rigorous competition are also important and our rules should reflect those goals, if they don't the public safety community will be faced with price tags that will go well beyond their budget and if that happens the 700 mhz band will stagnate. I think we are very conscious of that.

We have to pay attention to spectrum efficiency. Today 24 mhz of public safety spectrum may seem like a lot but if the demand for public safety channels continues at the current rate the entire 24 mhz could be quickly swallowed up unless we adopt rules to ensure that it will be used efficiently and wisely.

In establishing the 700 mhz public safety band the Commission committed itself to achieving spectrum efficiency by specifying 6 1/4 khz channels. Nothing since has caused us to conclude that there are any insurmountable technical obstacles that prevent accommodating one voice path and a 6 1/4 khz channel. Although the Commission understands the arguments in favor of wider band width channels for the near term, we remain convinced that if it is possible to produce affordable portables, mobiles, and infrastructure that will operate in the 6 1/4 khz channels we should ultimately do so.

Ultimately the Commission must decide whether the

marketplace will lead to the development of 6 1/4 khz equipment or whether it will be necessary to encourage use of spectrum efficient equipment by regulation. If the marketplace does not respond, the Commission may have to institute rules, similar to those used in the refarming proceeding. For example, our rules require that after January 1, 2005 equipment in the refarming bands will not be type accepted unless it is capable of providing one voice channel in a 6 1/4 khz band width.

So the question is not whether 6 1/4 khz technology is going to be implemented on the interoperability channels, the question is when. The answer to that question currently is in the hands of the NCC and we're looking to the NCC for guidance to ensure that the 6 1/4 khz technology will be available and that there will be a graceful transition to this new technology.

Providing telecommunications. Another priority for us is providing telecommunications capability on Native American tribal lands. There's been a lot of publicity in terms of the Commission's interest in that topic. The Chairman and others have been out to some of the tribal lands out West and have held conferences and are very concerned about the lack of telecommunications services in some of these areas.

And so the regional planning process, we would

hope, would affirmatively include representatives from the Native American tribes if the land of any such tribes falls within the area of jurisdiction of a regional planning committee. That is something else that we would encourage.

The National Congress of American Indians maintains a directory of tribes within the United States and the directory is on the internet. Michael Wilhelm has all the details, as I understand. So we would encourage you that they should be worked into the regional planning process.

I think that's about it. I do have some time to take some questions if anybody has any. Again, I want to thank Kathy Wallman for her leadership, and the steering committee, and everybody who has put a lot of hard work into this and continues to do so.

MR. MCEWAN: I'm Harlan McEwan. I represent the International ASSociation of Chiefs of Police. We appreciate your comments.

First of all, the last thing you talked about, the Native American tribal lands issue, to me that is the least of our problems as far as spectrum is concerned. I mean, there really to my knowledge, are no spectrum problems in the areas you are talking about. I mean, we're talking about New York City, Dallas, Chicago, L.A. There aren't many tribal lands in those areas where we are in serious

ATTACHMENT 5

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of:)
)
PUBLIC SAFETY NATIONAL)
COORDINATION COMMITTEE)
)

Commission Meeting Room
Federal Communications
Commission
445 Twelfth Street, S.W.
Washington, D.C. 20554

Thursday,
April 6, 2000

The Subcommittee met, pursuant to the notice at 2:45 p.m.

APPEARANCES:

GLEN NASH, Chair
DAVE BUCHANAN
MICHAEL WILHELM
ROBERT SCHLIEMAN
DON PFOHL
RON HARASETH
DON ASHLEY
STEVE BEEFERMAN
JOHN POWELL
PAUL MAY
ART McDOLE
ERNIE HOFMEISTER
JOHN OBLAK
RICK MURPHY
DAVID EIERMAN
CARLTON WELLS
BOB SPEIDEL

regard to recovering the other half channel.

MR. NASH: I guess, John, my concern is as I look at the interoperability channel, at what point do you do the shift and how do you get those thousands of users out there on your interoperability channel to all do the shift simultaneously?

MR. POWELL: I have a very easy answer to that, and that goes back to our early discussion. We don't shift. We stay at 12.5 on the interoperability channels.

MR. SCHLIEMAN: A the common denominator. I always want to add that line in there. It seems to get lost.

MR. EIERMAN: David Eierman, Motorola. I really don't see anything wrong with the original band plan in the sense that, you know, you are talking about the narrow band voice. It was basically laid out in 25 kilohertz blocks. It goes back to the narrow band migration issues from VHF/UHF where they -- you know, with on-center migration.

And when you did on-center migration, you created a new channel. But it was half above you and half below you. And unless the people above or below you migrated, that channel wasn't freed up. And that is one of the issues that narrow band migration is not going very well at UHF and VHF.

The lay out of this was set up such that, you

know, assuming you started at 12.5 and you could aggregate up to 25 or you could migrate down to 6.25, it would be such that when you migrated one way or the other, a block would be freed up somehow. And it may be a two-step process.

Let's say you start out at Project 25 on a 12.5 kilohertz channel. Your initial step would be to start implementing subscribers out there at 6.25 that were still on that same center. And you could talk back to the 12.5 kilohertz infrastructure.

At some point when you decide to change out that infrastructure, that 6.25 infrastructure, at that time all the radios could be moved to either the lower or upper 6.25 within that 12.5 channel. That does free -- you know, you actually do free up, you know, a full channel some time in the migration path.

Concerns have been raised, well, you know, I can't reuse that 6.25 at the same site. No, you can't. You know, you've got 40 db adjacent coupled power into it. You could reuse it at another site in your system. You could horse trade it with somebody else, you know, something. But there is a whole block of spectrum freed up.

As far as interoperability, yes, the common mode we have defined today is 12.5. You know, the project -- you know, what has been proposed to the NCC and by the NCC to the FCC is Project 25 on 12.5 as the common IO mode on 12.5

kilohertz band width channels.

Again, the same type of migration could take place. You know, if there is 12.5 IO infrastructure out there, 6.25 guys operating on that 12.5 center could operate through that infrastructure. So the migration, you know, that allows 6.25 people to talk through the IO infrastructures there, they've got a common protocol that allows 12.5 or 6.25 to operate.

You know, sometime way in the future, you know, some of the IO channels could be set aside as 6.25-onlys and some of them remain 12.5s for some period. And, you know, you've got to go in on a calling channel and tell them whether you want a 6.5 -- a 6.25 or 12.5. And maybe even, you know, umpteen out in the future, all of them -- when the majority of the subscribers migrate to 6.25, you could migrate.

I don't know that there will be a major migration to 6.25. But, you know, the band plan does not prevent the migration to 6.25 on IO or 6.25 on general use channels.

MR. NASH: Understood that it does not prevent it. It just -- it does make it more difficult to implement. And, you know, John's comment, well, we just never really change, let me tell you that that is causing significant consternation on the eighth floor and with Michael's boss.

And so, you know, this committee in making its

recommendations needs to be aware that, you know, we have a significant sale job that has got to go down, you know, to convince the people in authority here at the FCC that 12.5 on the interoperability channels is the right decision for a long period of time. And I think we need to talk about when should a transition to 6.25 be considered and how might that transition be accomplished. Art?

MR. McDOLE: Art McDole, APCO. I think one thing that we are kind of neglecting, if you would go back to the report and order, there were quite a few comments written by the Commission on the and plan in which they did something very unusual. They declined to list a band plan and operating centers as they have done on all the other bands.

They said we are purposely leaving these as channels, 6.25 channels. You put the center anywhere you want. Presumably, if you wanted to go so far, you could use an amplitude modulated single site band, stick the center over one edge of it and go one direction providing everybody went in the same direction.

In any event, the coordination problem is going to be very severe. You made a very astute statement when you said we somehow have to make sure that through the regional planning process, we work in concert or we will have utter chaos as regional planning committees attempt to set aside -- which is the purpose of regional planning -- pre-allot